

Solar Bulletin

JUN 9 1973

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS — SOLAR DIVISION
540 NORTH CENTRAL AVENUE
RAMSEY, NEW JERSEY, U.S.A.



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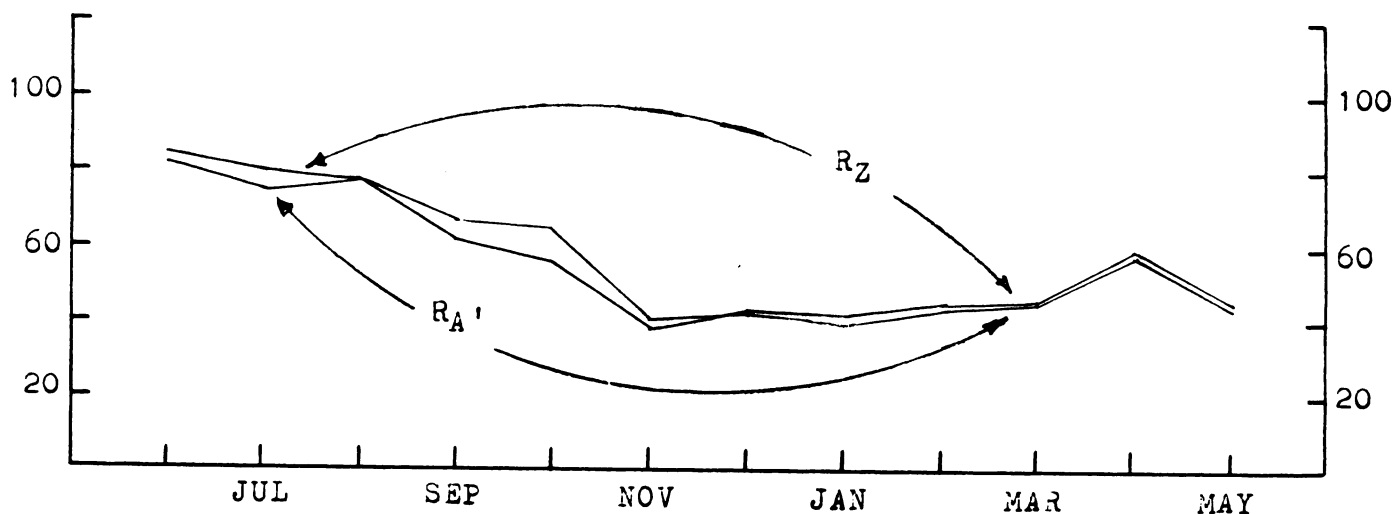
May 1973

SOLAR ACTIVITY DURING MAY

Thirty-eight ionospheric disturbances were recorded by the Solar Division's observers during May. This was exactly the same number that was recorded during April. In general, the energy level of the average event was less during May than in April. Twenty-five of the thirty-eight events were recorded during the first six days of the month and none were recorded between the sixth and the fourteenth day. During the first two days of the month, events happened in such rapid succession that the new events often started before the previous one had completely decayed. On page two is reproduced one of the typical recordings of the second event on the 18th as recorded by the SES (Sudden Enhancement of Signal) method.

The mean of the American sunspot numbers fell to 39.5 for May, a return to the general level it had maintained for five months prior to April. The sun was spotless for the third time this cycle on the 14th. It was previously spotless for a few hours on 11 October 1972 and all day on January 29, 1973. The spotlessness of the 14th ended before the day was over when a sunspot group rotated on the visible disk from the northeast limb. This was a return of a group that went over the west limb on 29th April. As this group rotated into view it showed interesting complex structure and magnetic data indicated there were probably two groups, an alpha-p and following it, a gamma group. As seen in white light, these could just as well have been considered a single group.

RECENT TREND OF RELATIVE SUNSPOT NUMBERS



AMERICAN (R_A) AND ZURICH (R_Z) RELATIVE SUNSPOT NUMBER, MAY 1973

DAY	R _A '	R _Z	DAY	R _A '	R _Z
1	30	24	16	34	33
2	43	46	17	39	34
3	53	64	18	41	41
4	63	77	19	36	42
5	73	92	20	45	32
6	66	68	21	42	52
7	75	82	22	51	53
8	48	52	23	46	47
9	30	30	24	57	57
10	24	25	25	62	64
11	22	26	26	47	46
12	19	18	27	44	51
13	7	7	28	26	32
14	2	2	29	36	23
15	26	25	30	21	21
			31	15	17

Monthly Means

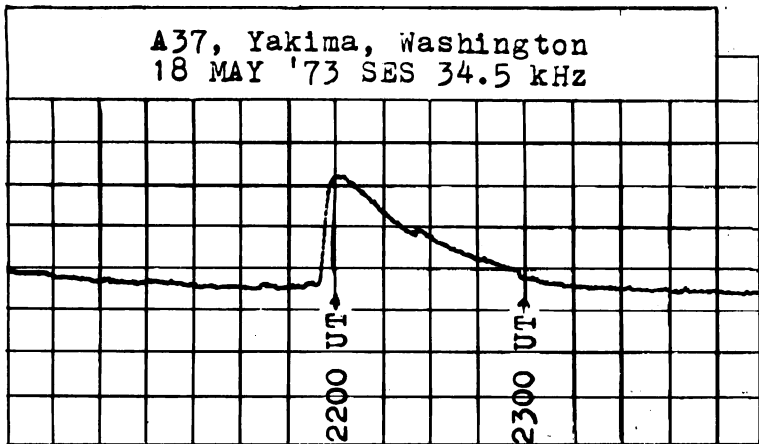
R_A' = 39.5

R_Z = 41.5

SUDDEN IONOSPHERIC DISTURBANCES RECORDED DURING MAY 1973

DAY	MAX	SEA	SES	DEF	OBSERVERS	DAY	MAX	SEA	SES	DEF	OBSERVERS
1	0258		1+	4	A31	4	1540		1+	5	A1, 19, 21, 31, 33, 36, 37, 38
1	1200		1-	4	A1, 19, *	4	2044		1	5	A1, 19, 21, 30, 31, 33, 36, 37, 38
1	1430		2-	5	A1, 21, 31, 33, 36, 37, *	4	2325		1-	5	A21, 30, 31, 36, 37, 38
1	1605		2-	5	A1, 21, 30, 31, 33, 36, 37, *	5	0940	1	2	5	A17
1	1844	2-	2-	5	A1, 19, 21, 30, 31, 33, 34, 36, 37	5	1721	1+	2	5	A1, 19, 21, 23, 26, 28, 30, 31, 33, 34, 36, 37, 38, *
1	2041	2+	2+	5	A1, 19, 21, 26, 30, 31, 33, 34, 36, 37	5	1857		1-	5	A1, 19, 21, 30, 31, 33, 36, 37, 38
2	1155	1		4	A17, *	5	1943		1	5	A1, 19, 21, 30, 31, 33, 36, 37, 38
2	1300	1-	1	5	A1, 34	6	1219	1-	1-	5	A1, 19, 23, 26, 34, 36, 38, *
2	1331		1-	5	A1, 19, 31, 33, 36, 38	6	2003		1-	5	A1, 19, 21, 30, 31, 33, 36, 37, 38
2	1623	1-	1-	5	A1, 21, 23, 30, 31, 33, 36, 37, 38	14	0109		1+	5	A19, 31, 33, 37
2	1852	1	1+	5	A1, 19, 21, 23, 31, 33, 34, 36, 37, 38	14	1452		1-	4	A1, 19, 31, 33, 36, 38
2	2050	2+	2+	5	A1, 19, 21, 23, 30, 31, 33, 34, 36, 37	16	0208		2	1	A31
2	2333		1+	5	A21, 30, 31, 33, 36, 37, 38	17	1403		1-	5	A1, 19, 33, 36, 38, *
3	0200		2-	4	A31	17	1918	1+	2-	5	A1, 19, 23, 26, 30, 31, 33, 34, 36, 37, 38
3	0404		1+	3	A31	18	1535	1	1+	5	A1, 19, 26, 30, 31, 33, 36, 37, 38
3	0840	1	2	3	A17, 31, *	18	2201	2-	2	5	A1, 19, 26, 30, 31, 33, 36, 37, 38
						19	2247	2	2	5	A1, 19, 21, 30, 31, 33, 34, 36, 37, 38
						20	2025		1-	5	A21, 31, 33, 36, 37, 38
						20	2150		1-	5	A21, 30, 31, 36, 37
						22	1728	1	1-	5	A1, 19, 21, 23, 30, 36, 37, 38
						24	1835		1-	5	A1, 19, 21, 31, 33, 36, 37, 38
						28	1742		1	5	A1, 19, 21, 30, 31, 33, 36, 37, 38

A37, Yakima, Washington
18 MAY '73 SES 34.5 kHz



*Events that were reported by letter by Dr. Barocas, Freston, England